

AMENDMENTS TO THE CLAIMS:

The following listing of claims replaces all prior versions and listings of claims in this application.

LISTING OF CLAIMS:

1. (Currently Amended) An image processing apparatus comprising:
 - a detecting unit that detects all pieces of additional information that are embedded in image data;
 - a storage unit that stores the detected pieces of additional information in association with location information thereof;
 - an analyzing unit that analyzes the detected pieces of additional information and judges whether any of the detected pieces of additional information includes predetermined information that is updateable; and
 - an embedding unit that
 - (1) updates, when a judgment result of the analyzing unit is affirmative, the predetermined information included in the piece of additional information, and embeds the piece of additional information including the updated predetermined information into the image data at a location where the piece of additional ~~predetermined~~ information is originally embedded, by referring to the stored location information, and
 - (2) embeds, when the judgment result of the analyzing unit is negative, a new piece of additional information including updated information into the image data at a location that does not overlap locations where the detected pieces of

additional information are embedded, by referring to the stored location information, the updated information being equivalent to the predetermined information.

2. (Canceled)

3. (Original) The image processing apparatus according to Claim 1, wherein when the analyzing unit analyzes the detected pieces of additional information, the analyzing unit employs a predetermined embedding format used by the embedding unit.

4. (Original) The image processing apparatus according to Claim 1, further comprising,
a warning unit that issues, when the analyzing unit finds that any of the detected pieces of additional information is unanalyzable, a warning to the effect that the piece of additional information is unanalyzable.

5. (Original) The image processing unit according to Claim 1, wherein when the analyzing unit finds that any of the detected pieces of additional information is unanalyzable, the analyzing unit judges that the piece of additional information does not include the predetermined information.

6. (Original) The image processing apparatus according to Claim 1, wherein the predetermined information includes information about a date when the image data is processed.

7. (Currently Amended) An image forming apparatus equipped with an image processing apparatus that processes inputted first image data so as to output second image data, the image forming apparatus forming an image according to the second image data,

the image processing apparatus comprising:

a detecting unit that detects all pieces of additional information that are embedded in the first image data;

a storage unit that stores the detected pieces of additional information in association with location information thereof;

an analyzing unit that analyzes the detected pieces of additional information and judges whether any of the detected pieces of additional information includes predetermined information that is updateable; and

an embedding unit that

(1) updates, when a judgment result of the analyzing unit is affirmative, the predetermined information included in the piece of additional information, and embeds the piece of additional information including the updated predetermined information into the first image data at a location where the piece of additional ~~predetermined~~ information is originally embedded, by referring to the stored location information, and

(2) embeds, when the judgment result of the analyzing unit is negative, a new piece of additional information including updated information into the first image data at a location that does not overlap locations where the detected pieces of

additional information are embedded, by referring to the stored location information, the updated information being equivalent to the predetermined information,

wherein the first image data embedded with the updated predetermined information and/or the new piece of additional information is outputted as the second image data.

8. (Canceled)

9. (Original) The image forming apparatus according to Claim 7, wherein when the analyzing unit analyzes the detected pieces of additional information, the analyzing unit employs a predetermined embedding format used by the embedding unit.

10. (Original) The image forming apparatus according to Claim 7, wherein the image processing apparatus further comprises, a warning unit that issues, when the analyzing unit finds that any of the detected pieces of additional information is unanalyzable, a warning to the effect that the piece of additional information is unanalyzable.

11. (Original) The image forming apparatus according to Claim 7, wherein when the analyzing unit finds that any of the detected pieces of additional information is unanalyzable, the analyzing unit judges that the piece of additional information does not include the predetermined information.

12. (Original) The image forming apparatus according to Claim 7,
wherein the predetermined information includes information about a
date when the image data is processed.

13. (Currently Amended) A method for embedding additional information
in image data comprising:

a first step of detecting all pieces of additional information that are
embedded in the image data;

a second step of storing the detected pieces of additional information in
association with location information thereof;

a third ~~second~~ step of analyzing the detected pieces of additional
information and judging whether any of the detected pieces of additional information
includes predetermined information that is updateable; ~~[[and]]~~

a fourth ~~third~~ step of updating, when a judgment result in the third
~~second~~ step is affirmative, the predetermined information included in the piece of
additional information, and embedding the piece of additional information including
the updated predetermined information into the image data at a location where the
piece of additional ~~predetermined~~ information is originally embedded, by referring to
the stored location information, and

a fifth ~~fourth~~ step of embedding, when the judgment result in the third
~~second~~ step is negative, a new piece of additional information including updated
information into the image data at a location that does not overlap locations where
the detected pieces of additional information are embedded, by referring to the

stored location information, the updated information being equivalent to the predetermined information.

14. (Canceled)

15. (Currently Amended) The method for embedding additional information in image data according to Claim 13,

wherein when the detected pieces of additional information are analyzed in the third ~~second~~ step, a predetermined embedding format used for embedding the piece of additional information in the fourth ~~third~~ step and the new piece of additional information in the fifth ~~fourth~~ step is employed.

16. (Currently Amended) The method for embedding additional information in image data according to Claim 13, further comprising,

a warning step of issuing, when any of the detected pieces of additional information is judged to be unanalyzable in the third ~~second~~ step, a warning to the effect that the piece of additional information is unanalyzable.

17. (Currently Amended) The method for embedding additional information in image data, according to Claim 13,

wherein when any of the detected pieces of additional information is judged to be unanalyzable in the third ~~second~~ step, the piece of additional information is judged not to include the predetermined information.

18. (Original) The method for embedding additional information in image data according to Claim 13,

wherein the predetermined information includes information about a date when the image data is processed.

19. (Currently Amended) The method for embedding additional information in image data according to Claim 13, further comprising,

a step of forming an image according to the image data that includes one of (a) the updated predetermined information embedded in the fourth ~~third~~ step and (b) the new piece of additional information embedded in the fifth ~~fourth~~ step.

20. (Currently Amended) A computer-readable medium containing a program that is executed by a computer, the program making the computer function as the following:

a detecting means for detecting all pieces of additional information that are embedded in image data;

a storing means for storing the detected pieces of additional information in association with location information thereof;

an analyzing means for analyzing the detected pieces of additional information and judging whether any of the detected pieces of additional information includes predetermined information that is updateable; and

an embedding means for

(1) updating, when a judgment result of the analyzing means is affirmative, the predetermined information included in the piece of additional

information, and embedding the piece of additional information including the updated predetermined information into the image data at a location where the piece of additional predetermined information is originally embedded, by referring to the stored location information, and

(2) embedding, when the judgment result of the analyzing means is negative, a new piece of additional information including updated information into the image data at a location that does not overlap locations where the detected pieces of additional information are embedded, by referring to the stored location information, the updated information being equivalent to the predetermined information.

21. (Canceled)

22. (Original) The program according to Claim 20,
wherein when the analyzing means analyzes the detected pieces of additional information, the analyzing means employs a predetermined embedding format used by the embedding means.

23. (Original) The program according to Claim 20, making the computer further function as the following,

a warning means for issuing, when the analyzing means finds that any of the detected pieces of additional information is unanalyzable, a warning to the effect that the piece of additional information is unanalyzable.

24. (Original) The program according to Claim 20,
wherein when the analyzing means finds that any of the detected
pieces of additional information is unanalyzable, the analyzing means judges that the
piece of additional information does not include the predetermined information.

25. (Original) The program according to Claim 20,
wherein the predetermined information includes information about a
date when the image data is processed.

26. (Currently Amended) An image processing apparatus comprising:
a detecting unit that detects additional information that is embedded in
image data; [[and]]
a storage unit that stores the detected additional information in
association with location information thereof; and
an embedding unit that embeds new additional information in the
image data at a location that does not overlap a location where the detected
additional information is embedded, by referring to the stored location information.

27. (Currently Amended) A method for embedding additional information
in image data, comprising:
a first step of detecting additional information that is embedded in
image data; [[and]]
a second step of storing the detected additional information in
association with location information thereof; and

a third ~~second~~ step of embedding new additional information into the image data at a location that does not overlap a location where the detected additional information is embedded, by referring to the stored location information.

28. (Currently Amended) A computer-readable medium containing a program that is executed by a computer, the program making the computer function as the following:

a detecting means for detecting additional information that is embedded in image data; ~~[[and]]~~

a storage means for storing the detected additional information in association with location information thereof; and

an embedding means for embedding new additional information into the image data at a location that does not overlap a location where the detected additional information is embedded, by referring to the stored location information.